



US008482425B2

(12) **United States Patent**
Lauer et al.

(10) **Patent No.:** **US 8,482,425 B2**
(45) **Date of Patent:** **Jul. 9, 2013**

(54) **CELL PHONE DETECTOR FOR WASHING MACHINES**

(56) **References Cited**

(75) Inventors: **Carl J. Lauer**, Santa Barbara, CA (US);
Mark A. Lauer, Pleasanton, CA (US)

(73) Assignee: **LG Electronics, Inc.**, Seoul (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 326 days.

U.S. PATENT DOCUMENTS

6,222,458	B1	4/2001	Harris	
6,490,455	B1	12/2002	Park et al.	
6,580,372	B1	6/2003	Harris	
6,907,252	B2	6/2005	Papadias et al.	
2003/0143954	A1	7/2003	Dettinger et al.	
2007/0261713	A1	11/2007	Choi et al.	
2008/0074262	A1	3/2008	Paulkovich	
2011/0080300	A1*	4/2011	Bequette et al.	340/686.6
2011/0297831	A1*	12/2011	Yao et al.	250/338.4

FOREIGN PATENT DOCUMENTS

CN	1961111	5/2007
WO	2006-009375	1/2006

OTHER PUBLICATIONS

"Cell Phone Cellular Bracelet." As Seen on TV. Downloaded from <http://www.seenontvproducts.net/cellphonebracelet/index.html>.

Downloaded Aug. 1, 2007. 4 pages.

"Cell Phone Cellular Pen." As Seen on TV. Downloaded from <http://www.seenontvproducts.net/cellphonepen/index.html>. Downloaded Aug. 1, 2007. 4 pages.

* cited by examiner

Primary Examiner — Julie Lieu

(74) *Attorney, Agent, or Firm* — Mark Lauer; Silicon Edge Law Group LLP

(21) Appl. No.: **13/057,717**

(22) PCT Filed: **Aug. 3, 2009**

(86) PCT No.: **PCT/US2009/052586**

§ 371 (c)(1),

(2), (4) Date: **Mar. 11, 2011**

(87) PCT Pub. No.: **WO2010/017138**

PCT Pub. Date: **Feb. 11, 2010**

(65) **Prior Publication Data**

US 2011/0156899 A1 Jun. 30, 2011

Related U.S. Application Data

(60) Provisional application No. 61/087,352, filed on Aug. 8, 2008.

(51) **Int. Cl.**

G08B 1/08 (2006.01)

G08B 21/00 (2006.01)

(52) **U.S. Cl.**

USPC **340/686.6**; 340/539.1; 340/539.11;
340/539.13

(58) **Field of Classification Search**

None

See application file for complete search history.

(57) **ABSTRACT**

An apparatus is disclosed comprising: a clothes washing machine (30); a detector (33, 44) attached to the washing machine in a location that receives radio frequency (RF) signals that emanate from an interior (48) of the washing machine; and a warning device (35) that receives a signal from the detector to provide an alert when the detector has detected a RF signal from the interior of the washing machine, wherein the radio frequency signals have a frequency in a band designated for mobile phone (40) signals.

43 Claims, 4 Drawing Sheets

